

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method comprising:
electing a first server as active manager server, wherein the first server resides in
a chassis;
determining automatically, by receiving an indication, if the first server has failed
or has been overloaded, wherein the indication is generated based on
health matrices and performance matrices; and
electing a second server automatically as the active manager server to replace the
first server as the active manager server in response to the indication
received ~~when the first server is to be replaced~~, wherein the second server
resides in the chassis.
2. (Original) The method of claim 1, wherein the election is performed based on a
predetermined criteria, wherein the predetermined criteria comprises electing a
server with the lowest IP address as the active manager server.
3. (Currently Amended) The method of claim 1, further comprising:
extracting the health metrics and performance metrics, wherein the health metrics
and performance metrics are dynamic;
replicating the health metrics and performance metrics, wherein the replicating
the health metrics and performance metrics is performed periodically; and
dynamically updating a database populated with the health metrics and
performance metrics.
4. (Original) The method of claim 3, wherein the health metrics are server-based.
5. (Original) The method of claim 3, wherein the health metrics comprise tracking
power levels and temperature levels based on predetermined thresholds.

6. (Original) The method of claim 3, wherein the performance metrics comprise operating system-based metrics, kernel-based metrics, and server-based metrics.
7. (Currently Amended) The method of claim 3, wherein the performance metrics comprise tracking CPU utilization and memory utilization based on the predetermined thresholds.
8. (Original) The method of claim 3, further comprises an alert mechanism to alert whenever the health metrics or the performance metrics violate the predetermined thresholds.
9. (Original) The method of claim 3, further comprising replicating identification information, wherein the identification information is static.
10. (Currently Amended) A high-availability management system comprising:
 - a chassis comprising a plurality of slots;
 - a plurality of server modules coupled with the plurality of slots, wherein a first server module of the plurality of server modules is elected an active manager server;
 - an indication to automatically determine if the first server module has failed or has been overloaded, wherein the indication is generated based on health matrices and performance matrices; and
 - a second server module to automatically replace the first server module as the active manager server in response to the indication received.
11. (Original) The high-availability management system of claim 10, further comprising a database coupled to the chassis for storing information regarding chassis identification, slot identification, and server module type.

12. (Original) The high-availability management system of claim 10, wherein the first server module of the plurality of server modules is elected the active manager server based on a predetermined criteria.
13. (Original) The high-availability management system of claim 10, wherein a second server module of the plurality of server modules is elected the active manager server, based on the predetermined criteria, to replace the first server module as the active manager server when the first server module is to be replaced.
14. (Original) The high-availability management system of claim 10, wherein the election of the first server module as the active manager server is performed by middleware, wherein the middleware is a software.
15. (Original) The high-availability management system of claim 13, wherein the election of the second server module as the active manager server is performed by the middleware, wherein the middleware is a software.
16. (Original) The high-availability management system of claim 10, wherein the first server module is elected from a group comprising servers, telephone line cards, and power substations.
17. (Currently Amended) A method of uninterrupted management using sticky identification comprising:

assigning a chassis identification to a chassis coupled to a computer, wherein the

chassis comprises a slot;

assigning a slot identification to the slot based on the slot's location in the chassis;

and

assigning a server module type to the slot based on the chassis identification and the slot identification, wherein the server module type indicates server module characteristics;

electing a first server module as active manager server, wherein the first server module resides in the chassis;

determining automatically, by receiving an indication, if the first server module has failed or has been overloaded, wherein the indication is generated based on health matrices and performance matrices; and

electing a second server module automatically as the active manager server to replace the first server module as the active manager server in response to the indication received, wherein the second server module resides in the chassis.

18. (Original) The method of uninterrupted management using sticky identification of claim 17, further comprising retaining the server module characteristics corresponding to the server module type.
19. (Original) The method of uninterrupted management using sticky identification of claim 17, further comprising:
removing a first server module from the slot;
coupling a second server module to the slot; and
managing the second server module based on the server module characteristics corresponding to the server module type, wherein the managing the second server module is performed without updating a network management system.

20. (Original) The method of uninterrupted management using sticky identification of claim 17, further comprising:
- assigning a user-defined chassis identification;
 - assigning a user-defined slot identification;
 - assigning a user-defined module identification; and
 - retaining the user-defined chassis identification and the user-defined slot identification and the user-defined module identification.
21. (Currently Amended) A machine-readable medium having stored thereon data representing ~~sets~~ sequences of instructions, the ~~sets~~ sequences of instructions which, when executed by a machine ~~a processor~~, cause the machine ~~processor~~ to:
- elect a first server as active manager server, wherein the first server resides in a chassis;
 - determine automatically, by receiving an indication, if the first server failed or is overloaded, wherein the indication is generated based on health matrices and performance matrices; and
 - elect a second server automatically as the active manager server to replace the first server as the active manager server in response to the indication received ~~when the first server is to be replaced~~, wherein the second server resides in the chassis.
22. (Original) The machine-readable of claim 21, wherein the election is performed based on a predetermined criteria, wherein the predetermined criteria comprises electing a server with the lowest IP address as the active manager server.

23. (Currently Amended) A machine-readable medium of claim 21, wherein the sets ~~sequences of instructions~~ which, when executed by the machine ~~a processor~~, further cause the machine ~~processor~~ to:
- extract the health metrics and performance metrics, wherein the health metrics and performance metrics are dynamic;
- replicate the health metrics and performance metrics, wherein the replicating the health metrics and performance metrics is performed periodically; and
- dynamically update a database populated with the health metrics and performance metrics.
24. (Currently Amended) A machine-readable medium having stored thereon data representing sets ~~sequences of instructions~~, the sets ~~sequences of instructions~~ which, when executed by a machine ~~a processor~~, cause the machine ~~processor~~ to:
- assign a chassis identification to a chassis coupled to a computer, wherein the chassis comprises a slot;
- assign a slot identification to the slot based on the slot's location in the chassis;
- and
- assign a server module type to the slot based on the chassis identification and the slot identification, wherein the server module type indicates server module characteristics;
- elect a first server module as active manager server, wherein the first server module resides in the chassis;
- determine automatically, by receiving an indication, if the first server module has failed or has been overloaded, wherein the indication is generated based on health matrices and performance matrices; and

elect a second server module automatically as the active manager server to replace the first server module as the active manager server in response to the indication received, wherein the second server module resides in the chassis.

25. (Currently Amended) The machine-readable medium of claim 24, wherein the sets sequences of instructions which, when executed by the machine a processor, further cause the machine processor to retain the server module characteristics corresponding to the server module type.
26. (Currently Amended) The machine-readable medium of claim 24, wherein the sets sequences of instructions which, when executed by the machine a processor, further cause the machine processor to:
- remove a first server module from the slot;
 - couple a second server module to the slot; and
 - manage the second server module based on the server module characteristics corresponding to the server module type, wherein the managing the second server module is performed without updating a network management system.